



S. A. S. M. E. E. Bulletin

**SOUTH AUSTRALIAN SOCIETY OF MODEL
& EXPERIMENTAL ENGINEERS**

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1927 ~ 2004

**THE OFFICIAL JOURNAL OF
THE SOUTH AUSTRALIAN SOCIETY OF
MODEL & EXPERIMENTAL ENGINEERS INC**

SEPTEMBER 2004

ISSN/0155/3700

PRESIDENT'S REPORT FOR 2004
THE 77th ANNUAL GENERAL MEETING HELD ON AUGUST 10th 2004

Members, the following is a summary of the major events that have occurred during the past twelve months :

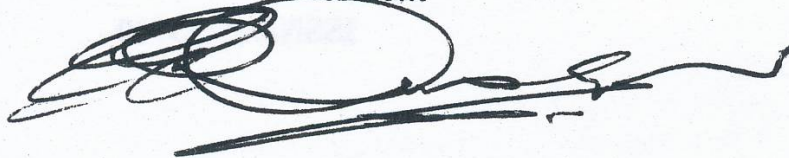
- I have again endeavoured to provide a variety of entertainment for your enjoyment, namely slide shows, talks by professionals, members, videos and club outings.
- New members joining = 8 full and 1 junior (same as last year)
- Annual club lunch held at "Fresh Choice Restaurant" 48 persons attended.
- Coal bunker manufactured & delivered to SASMEE by Huntington Eng.
- Annual auction night yielded a record amount in excess of \$500.00
- A small parcel of club grounds has been developed for model road vehicles
- Annual assessment by the Engineer on behalf of Workplace Services.
- The old vertical boiler in the steamhouse has been cut up for scrap.
- A new safety fence has been erected alongside 5" G track opposite S/house.
- General meetings well attended Ave= 43 Max= 51 Min= 32.
- SAR upper quadrant electric signal operating by trains ex Millswood station.
- Annual show of work in November with plenty of goodies.
- Boat pond cleaned of algae by treatment with Lakevac.
- Boat pond bore water is to be treated by Halovac plant, yet to be installed.
- Approximately 3 tonne of char purchased account uncertain future supplies.
- Renewal of 5"/3.5"G track completed Feby 2004 after 3 years and 10 months.
- Xmas BBQ put on free to members. 30 degree day with 106 in attendance.
- Club outing to Dinki Di Engineering with a good attendance. Supper incl.
- Club playnight in January. Pleasant 25 degrees with 90 in attendance.
- The "Pascoe" boiler in the steamhouse was completely retubed.
- Signal upgrade in Millswood station area.
- Loco trials & safety valve run, evening meal provided. 60 persons attended.
- Minor alteration to the Constitution re election of officers.
- Four issues of SASMEE Bulletin. Many thanks to editor Bill Coles.
- Wednesday workers continue to keep grounds and facilities looking excellent.
- Excellent service by the canteen ladies. A big thank you.

I wish to thank you, the members, for your help and input into keeping SASMEE on a healthy footing whether it be by helping on Public Field Days, general duties, special duties or just attending meetings—it all helps.

I would also like to take this opportunity to thank the out going Executive Committee for their generous support in helping to manage the affairs of SASMEE during yet another busy year.

May I express my appreciation to you all, we certainly have a club that we can be proud of.

Barry Dunstan
President



DAVE WORRELL

BUILDER OF FINE MODELS, DAVID WORRELL PASSED AWAY IN HIS SLEEP ON SEPTEMBER THE 5TH ,2004

A REGULAR LOCO DRIVER ON FIELD DAYS AND A STRONG SUPPORTER OF THE WEDNESDAY GROUP, DAVE WILL BE SADLY MISSED.

CLUB JOTTINGS

BY SMOKEY

WINTER RUNNING ---- June 2004

AH! The joys of winter running, the Sunday PFD 6th June ["D" day for those that can remember] had it all. A fine and cool day, 16 degrees, an enormous crowd of people, 11 locos, plenty of boats, full steam in the boiler house and Jack Davey on the gate who was not able to even scratch himself for the first hour.

These are the sort of days when help from members is really appreciated. Three station attendants were noted at each station. The canteen staff really excelled with Marg. Lewis, Jean Clark, Kristine Templeman and Suzanne Thomas flat out all the afternoon, completely selling out, by 4pm, of hot chips.[22kg]

The boiler house is beginning to look more spacious as cutting up of the old vertical boiler proceeds. Attendees David Eustice, Ralph Ollerenshaw, Bob Scanlon and Colin Cook continue to enjoy this domain always eager to answer questions from the public.

As usual an excellent array of boats plied the pond under the expertise of Norn Kernick, Bob Smith, Dean Deguisto, Bill Weste and Mary and Gerry Turner.

Jeanette Francis together with Margaret Lee who wanted to see the late Frank Lee's site by the Lily Pond Bridge.

Although 6 Birthday parties were noted there was a good balance of adults and children. Although he had a lot to contend with, Safety Officer Michael Moyse had no incidents to report, likewise with the St Johns reps.

MILLSWOOD STATION

Station attendants Alan Brabham, Alex Mitropoulos and John Daley dispatched the following trains:-

0-4-2 Talylyn #2	Bert Francis.
0-4-0 Dolgoch #2	Barry Dunstan.
4-6-2 8443 Pacific	Ian Thomas.
4-6-0 Highlander [FIT]	Brad Cottle.
0-6-0 Koppel	Glen Templeman.

Visitor Brian Oldfield was welcomed along with his fine example of an LMS Black Five however a problem with the leading bogie of the of the loco saw an early withdrawal, with its passenger consist being added to Koppel giving it a 4 car train with an average passenger loading of some 28 persons, which was handled with ease.

SASMEE PARK

Station attendants Graham Richards, Michael Tingay and David Naeser dispatched the following trains:-

2-8-0 Nigel Gresley #457	Rodney Harris.
2-8-0 Nigel Gresley #456	Brian Homann
4-6-4 QR Blue Baby	Dave Worrel.
0-6 + 6-0 Kitson Meyer #34	Graeme Driscoll.
----- Steeplecab	Ian Clark
----- Shunter Jack #004	John Monte.

P. S. The days don't come much better than this.

Honour Board

Some years ago when John Gordon was President ti was mooted and passed that an Honour Board listing former Presidents, since inception in 1927 be made. This proved to be no easy task as many hours were

involved delving into old minute books and club records and verifying that the information was correct and also names were correct.

After quite some considerable time John passed a nearly completed list to current President , Barry Dunstan, with the request, " Try to finish it".

With further enquiries the list was finally completed with the exception of the earlier years 1923-30 and 1934-35 inclusive. It was no secret that Vic Messer was the founding President in 1927, however club records in the way of minutes appear to be non existant prior to book #1 in 1935.

After shopping around it was discovered that a company called L.S. Signs was able to do this board at a resonable price, and members wil agree that they have done a fabulous job with the stained timberwork and gold lettering complete with the SASMEE logo. We have been advised of the colouring and coding of the numbers and letters so that an exact match may be made for future additions. The missing names may be added at a later date should they come to hand.

The Big Shift

After some 52 years residing at Royston Park Alan and Pauline Brabham are on the move. They are shifting to an area not very far from SASMEE and best of all Alan gets to set up a new workshop.

Riding Trucks

Any member presently building or contemplating building in the future should conform to the parameters set down in SASMEE` s Manual of standards and requirements for builders and owners of 7 1/4" & 5" gaige passenger carrying cars. This is to meet safety requirements and the SASMEE loading gauge. Rolling stock inspections are carried out at regular periods and the appropriate register updated accordingly.

All vehicles successfully passing inspection are issued with a sticker showing the next expiry date. A different colour is used each time, thereby enabling defaulters to be recognised.

Entertainment

Alex Mitropoulos gave another one of his renown slide shows at the June meeting. Slides consisted of Wednesdays work days, public field days and newly built locos. As usual this show was popular with members.

The July meeting was entertained by member Michael Tingay who gave an interesting talk, augmented by colour slides put onto CD, on his recent

trip to South America and Antarctica.

Of course the August meeting was the AGM and after this Barry Dunstan showed videos of an SAR theme Day at Railway Park and the rebuilding of the 2 stations at SASMEE, namely SASMEE Park & Millswood. This was followed by a video from Ian Clark's collection titled "Steam on the Settle to Carlisle" featuring ex LNER A4 Pacifics.. Good Stuff!

Loco Trials/Safety Valve Run.

Once again, this year this event proved popular with members judging by the number of participants. No less than 10 Locos took part making for a full days program. Thanks once again to Alan Wallace for the organising of times and providing the "Famous" V & SAR dynamometer car. It was a first class day weatherwise with 15 degrees and cool and sunny periods. The threatening rain had thankfully fallen the previous night. Thanks to the following chaps for the timekeeping, coal weighting and computer operation, Ian Clark, Simon Lindsay, Graeme Driscoll, Michael Moyse and Andrew Thomas.

Millswood Station track was used as the main line thus allowing participants to wait on the loop line after coming out of loco.

All 7 1/4" drivers remembered to bring along their offset couplings in order to couple to the 5" gauge Dyno car. The first train was away pretty much to schedule. The hot favorite to win was Alan Wallace after his brilliant effort last year, however a lot of drivers had learned from their mistakes and applied more strategic techniques to a greater advantage this time.

The day went all too quickly and was thoroughly enjoyed by the 60 people that turned up. [See separate report for the trial results]

At 5pm Glen Templeman and Barry Dunstan set out to collect our pre-ordered meal of Villis pies, pasties and sausage rolls together with Pizza Hut Pizzas. At 5.30pm all trains were stabled and 39 people sat down to enjoy a piping hot meal under the protection of the verandah.

At this hour it was very cold and still, an ideal recipe for the Safety Valve Run which is a unique feature to SASMEE. Many stayed on to enjoy the night run.

The following locos were in attendance:-

Trial Participants

7 1/4" gauge

0-6-0 Koppel
0-4-0 Jens #1938
0-4-0 Dolgoch #2
4-6-2 Pacific #8443
----- Shay #12
----- Petrol Electric

Drivers

Glèn Templeman.
Bill Coles.
Craig Dunstan
Ian Thomas.
Graeme Driscoll.
Graham Brown.

5" gauge

2-8-2 SAR #702
4-8-4 SAR#509
0-6-0 Speedie
4-4-0 Virginia

Drivers

Bob Smith.
John Mere.
Alan Wallace.
Brad Cottle.

Non Trial Participants

----- 004 Jack 5"g
----- Electric 7 1/4"g

John Monte.
Graham Dicker.

Congratulations to Craig Dunstan who masterfully ran his father's 7 1/4"g "Dolgoch" to an efficiency level of 1.73%, thus taking out the coveted trophy.

Craig stated that he fired as would be done in full size practice, the injector to stifle the safety valves as well as keeping a respectable water level, all this in conjunction with full regulator and the reversing lever notched up thus giving the best scenario for good loco performance. The presentation of the trial trophy was made at the Annual general meeting, by the President

TRACK WORK

The 5" g track, on the approach to the girder bridge, was slightly re-aligned on Wednesday 16th June to overcome a slight jerking sensation to the passage of trains.

On 2nd June the 7 1/4" g track was lifted from the exit points at Millswood station to the points at Skewes Crossing, in effect this was the whole track through the concreted level crossing area. There were several reasons for this,

- The fourth rail [for track protection for heavy vehicles] has always been some 3/16" proud and accordingly often fouled 5" g rolling stock. Portion of this rail was removed, cleaned up and rewelded to the correct position.
 - Resleepering with plastic sleepers.
 - With the proposed extra block signal at Skews Crossing the mentioned section of track had to be insulated, hence the cut in the steel cross ties.
 - Slight realignment of the track at the Skews Crossing points.
- Upon completion of this work the track will receive fastenings and fresh stone ballast. A drainpipe has also been installed in the area.

VERTICAL BOILER

For several weeks [wednesdays] Ralph Ollerenshaw and Alan Brabham had been cutting up the old Boiler into manageable pieces for scrapping.

On wednesday 16th June a couple of contractors for Smorgan Steel Recyclers of Gillman called with a 5 tonne truck and physically manhandled the scrapped boiler pieces on to the tray top. Other scrap metal was also loaded. The worth of the scrap steel should, hopefully, cover the cost of oxy and acetylene.

The extra room in the boiler house is really noticeable and who knows sometime in the future it may be able to house more steam exhibits.

RAIN GUTTERS

The clubhouse and the verandah gutters are always prone to clogging up with leaves and debris with consequent overflowing. Regular cleaning is required and this is no simple task as the cleaner is required to work on the roof. On wednesday 21 July Graham Richards attended to this messy job, thus allowing storm water free passage from the gutters. Many thanks to Graham.

SIGNING ON

Members are once again reminded of the requirement to sign the attendance book immediately upon entering SASMEE grounds. Make a habit of stopping at the clubhouse and signing before you go any further.

ON THE SICK LIST

Ron Bridgeman, who unfortunately has not been in good health for several

years managed to get a ride from his home at Holden Hill to the club on wednesday 30th to say hello. Because of his health problems Ron is unable to attend the club as he once did, however he states being able to keep a tab on things by reading the quarterly edition of SASMEE bulletin.

Club President, Barry Dunstan, entered St Andrews Hospital on wednesday 23 June for major surgery which necessitated an 8 day stay and subsequent several weeks recovery. Barry advises that he will be back on deck for the AGM and would also like to thank the many phone callers for their words of encouragement, and those who sent get well cards.

Des and Eleanor Goedeke have again been on the sick list. Des managed to pay a quick visit on wednesday 11th August to pay his subs and advised that things are on the mend. Des is a regular station attendant at SASMEE PARK and his presence has certainly been missed and members wish them both a speedy recovery.

Further sad news with regular stalwart Bert Francis having suffered a heart attack on thursday 12th August and admitted to Queen Elizabeth Hospital with 3 blockages suspected together with low blood pressure. Member's thoughts are surely with Jeanette and family at this worrying time and hopes are high that Bert will be back on deck in double quick time.

WINTER RUNNING JULY 2004

Saturday 17th July was typical of winter with a very cold 12 degrees, not much sun and several showers. This was reflected by a relatively small crowd evenly matched by a dismal show of motive power, with only 2 locos on the 7 1/4" track and 1 only on the 5" g with 1 other from 3 O'clock. Boating on the pond was also light and the only operators being Bob Smith, Dean Deguisto and Malcolm Ambler. The best and warmest place was in the boiler house and a lot members spent a spell in there. The ladies in the canteen had an easy day with good sales in hot food.

SASMEE PARK STATION

Station attendants Ainsley Cuthbertson and Michael Tingay leisurely dispatched the following trains:-

----- Steeplecab Electric

Ian Clark.

4-6-0 3cyl. Freelance

Glen Templeman.

MILLSWOOD STATION

Station attendants Alan Brabham, Alex Mitropoulos and John Daly dispatched the following:-

0-4-2 Talylyn #1

Bert Francis.

----- Shay #12

Graeme Driscoll.

President Barry Dunstan was welcomed back after having had recent surgery, and is eager to get "Dolgoch" back into regular service again.

NEW MEMBERS

There have been no new members in the last quarter. This is most unusual!

TIMBERRRRRRRRRR !!!

A nasty incident occurred at 3.50pm on Saturday 31st July involving a large tree. Thank goodness it did not happen 24 hours later on our Sunday public field day.

On a completely windless afternoon Barry and Craig Dunstan [last to leave] were sitting under the verandah having a chat and looking outwards toward the steamhouse when all of a sudden the large wattle tree on the croquet club boundary began to topple over toward our property. With a whoosh it came crashing down taking the chain fence with it. The huge trunk and branches and foliage came to rest across both 7 1/4" and 5" tracks and was also across the roof of the boiler shed.

Upon summoning, both Ian Clark and John Lewis returned to the club to help survey the situation with the idea of getting the mess cleared away in order to have our PFD the following day.

With help from the croquet club members we were able to get the Unley Council Emergency Squad to make an immediate start on the trees removal. Barry and Craig stayed on until 8.30pm when by this time 5 truck loads of tree parts had been removed leaving only the huge stump lying across the 7 1/4" g track. Ian Clark opened up at 7.30am Sunday to allow the workers to carve up the stump and load via a fork lift into the truck.

Luckily no damage was done to our track and signals, and our PFD was able to proceed as normal. It is up to the Council to repair our fence. Many thanks to Ian, John, Barry and Craig for their efforts and the Council chaps were suitably rewarded for their prompt attention.

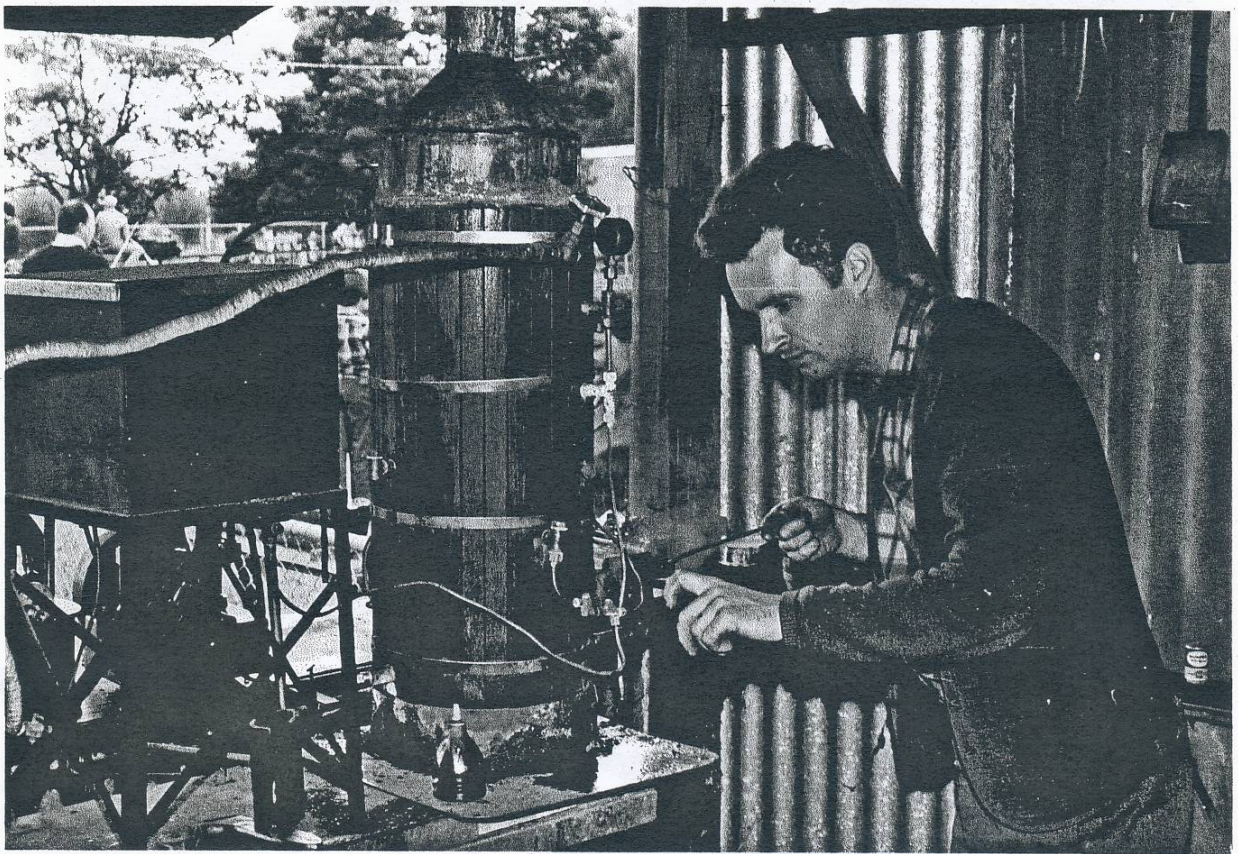


Photo 1

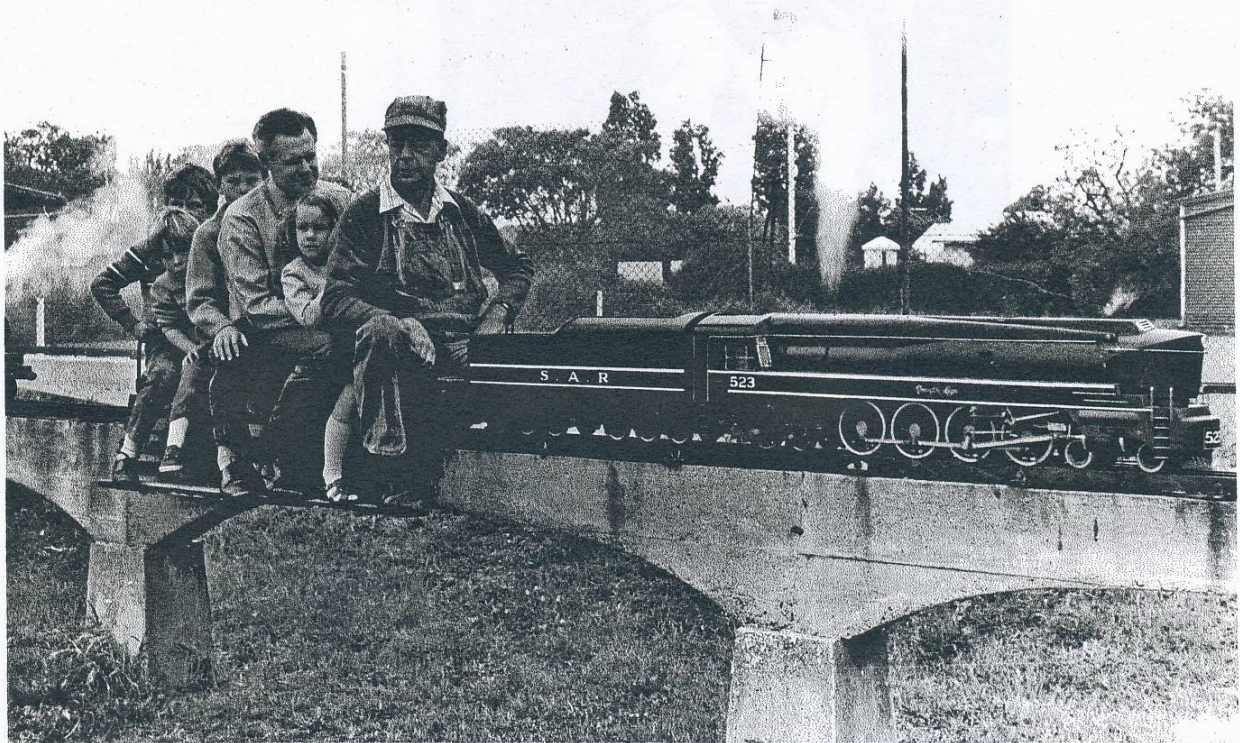


Photo 2

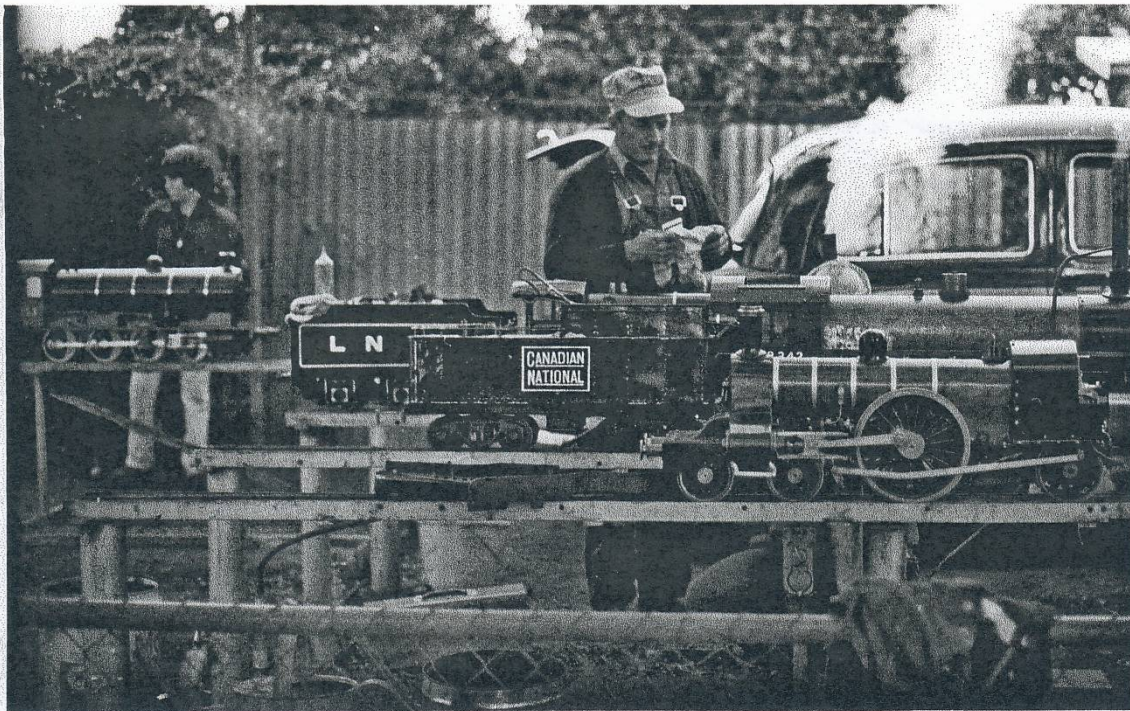


Photo 3

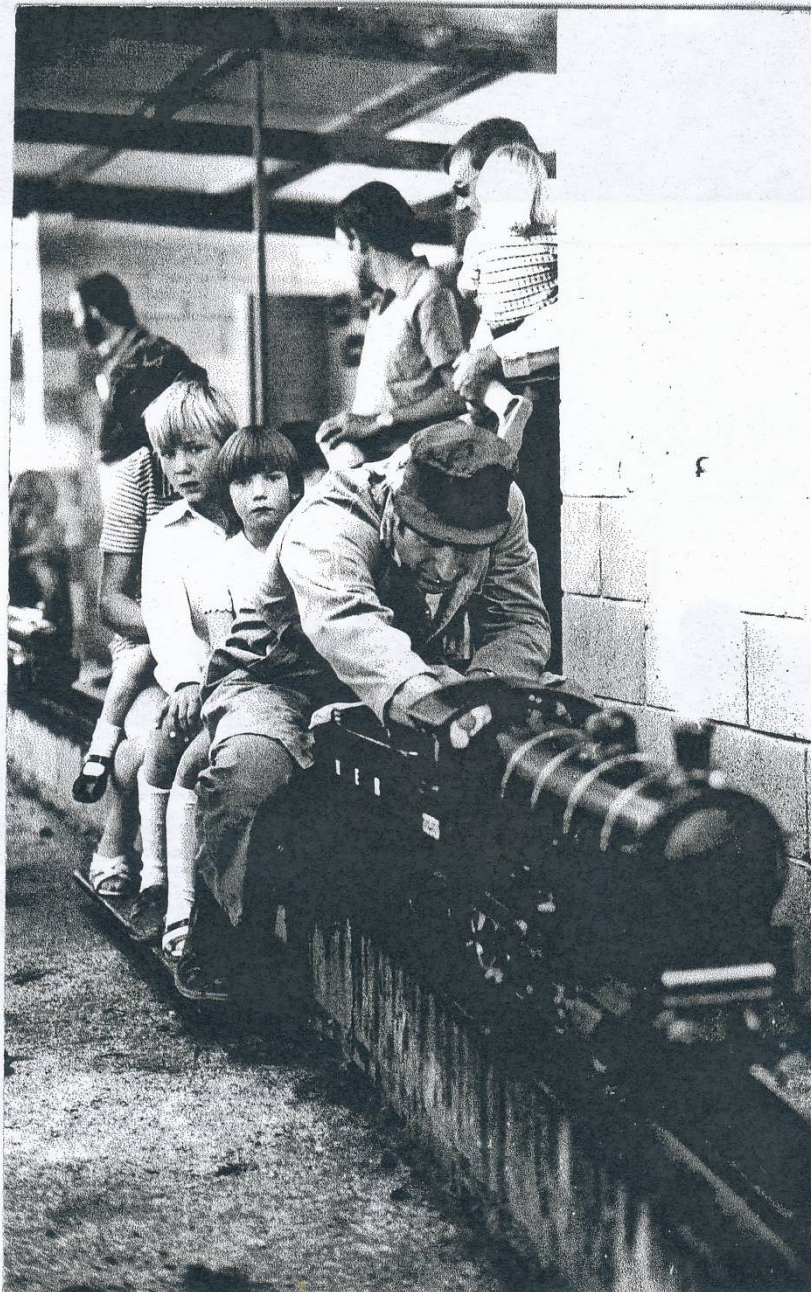


Photo 4



Photo 5

Photo 6



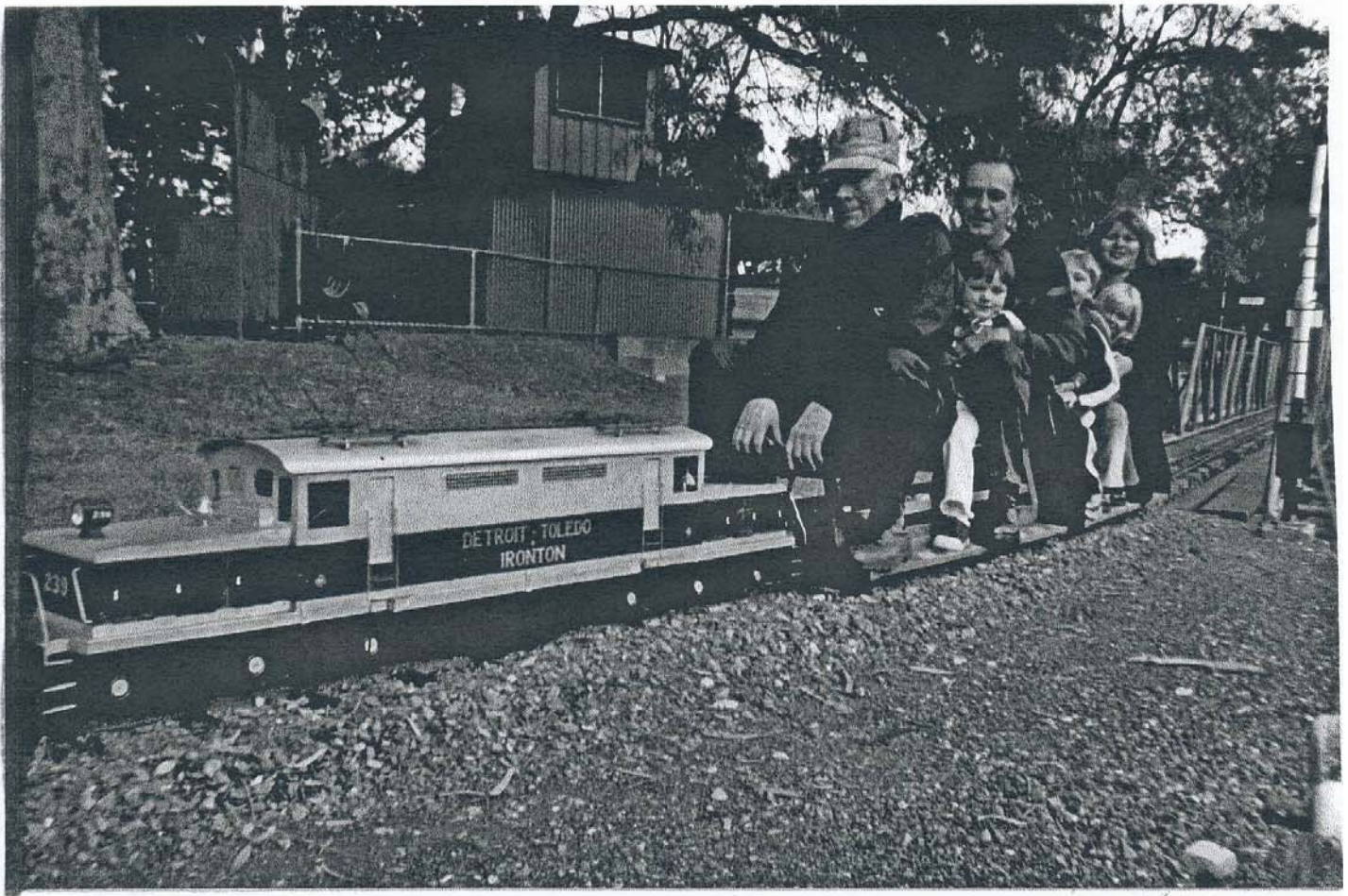


Photo 7

Photo 8



WINTER RUNNING JULY 2004

Being well into winter with our Sunday 1st August PFD being only 13 degrees, and very damp, the day still drew a good crowd.

Dissappointment would have been the order of the day had the fallen tree not been removed the day before. With Jack Davey being absent John Lewis took over the gatehouse duties.

Once again a favoured place was the steamhouse with plenty of warmth being given out by the boiler. There was plenty of action on the boat pond with operators Dean Deguisto, Bob Smith, Bill Weste and Gerry and Mary Turner. Norm Kernick was present but did not run the hydroplane as he had just spent a few days in hospital. Hope things are mending up OK Norm.

SASMEE PARK

Simon Lindsay was the lone station attendant dispatching the following:-

Terry Tresize	LNER B1 #1088
Brian Homann	Nigel Gresley #456
Rodney Harris	Nigel Gresley #457
Ian Clark	Steeplecab Electric
Malcolm Ambler	NSW 422 Class D/E
John Monte	Jack 004 & Junior 005

MILLSWOOD STATION

There were 3 station attendants, Alan Brabham, Alex Mitropoulos and John Daly, They controlled the following locos:-

Craig Dunstan	Dolgoch #2
Bert Francis	Tallylyn #1
Ian Thomas	Pacific #8443

Safety Officer, Glen Templeman.

ANNUAL GENERAL MEETING

The AGM was held on Tuesday 10th August 2004 with a reasonable attendance of 37 persons. There were 7 apologies. After many years on the Executive Committee, including the office of Treasurer, John Lewis did not seek re-nomination, however he still remains in charge of canteen supplies and supervision of work projects around the club. Many thanks to John.

Phil Waugh is again the treasurer with the assistant being Rodney Harris. The listing of SASMEE Office Bearers for 2004 -- 2005 is shown on the back cover of this edition of the Bulletin.

SUBSCRIPTIONS

Please be advised that the 2004 -- 2005 subs are now **OVERDUE**.

If you have not paid you run the risk of being struck off the register, so act now before you forget!

TRACTION ENGINE TRACK

As earlier advised the area set aside for the traction engines and other road vehicles is well advanced with fencing and gates in place together with the resiteing of water and air supplies. Work still required is to removal of a couple of inappropriate items of growth and the final grading of the ground and the addition of suitable topping. A safe working system needs to be applied to the area where road vehicles cross the railway track to gain entrance to the new designated area.

LOCO SALES

Member John Daley was recently fortunate to learn of Bert Francis desire to sell one of his 7 1/4" g locos due to lack of storage space following the completion of his 7 1/4" g "Simplex"

The relatively new [just 4 runs] SAR narrow gauge, 3' 6" "V" class No 9 became available for sale and was snapped up immediately by John on the 7th of August. The history and specifications of this loco were given in the June 2002 Bulletin. No doubt John will be kept busy building the necessary riding gear and braking apparatus as well as qualifying for his competency certificate. It is good to see that the loco stayed within the club.

CUTTING CORNERS

Upon driving away from the 7 1/4" g lifter to the left, one had to be careful not to cut the corner and run the risk of dropping over the parapet wall causing damage and embarrassment. To eliminate this problem it was decided to erect a 1m concrete wall diagonally across the corner. The area was boxed up and the concrete poured on wednesday

11th August. The area behind the wall was backfilled. Drivers may now drive away knowing that they now have a greater margin of safety.
N.B. Luckily , no one had ever gone over the parapet wall but the danger was there.

SOME SASMEE HISTORY

October 1950

SASMEE Patron was the Govener of the day,
Sir Willoughby Norrie. KCMG. CB. DSO. MC.

August 1970

Several members requested that a 5" g ground track be built.

February 1971

"Char" became known as an excellent locomotive fuel.
Club to purchase several bags in addition to briquettes.

August 1976

Vertical boiler ready to have fittings installed and the boiler house is being built around it.

November 1980

Boiler cladding installed, free, by Bradford Insulation.
[in 2004 the condemned boiler, was cut up for scrap]

RAILWAY QUIZ

Q. What was the railway gauge of 4' 8 1/2" [standard] conceived from?

Answer in next Bulletin.

Answer to quiz -- last Bulletin

Q. During the second world war, because of our involvement with Japan, what was the alternative name given to the 2-8-2 Mikado Class Locos?

A. MacArthur Class.

[derived from that famous U.S. of A. General]

PHOTO GALLERY

Photo 1 A young Mark Grimshaw, working in the Steam house, fires a small boiler which supplied steam to various models.
When --- Around 1971.

Photo 2 Morrie Turner driving his newly completed SAR "520" Class across the Lilypad Viaduct.
When --- Around 1971.

Photo 3 John Wakefield stemming up "Springbok" [now owned by Barry Dunstan] at the old steaming bay out side the clubhouse. Dave Worrrel's "Netta" in the the background. At front is Clarrie Burden's Stirling Single, behind is Alec Bradley's unfinished "Caribou".
When --- Around 1971

Photo 4 Th late Dave Worrel's "Netta" departing SASMEE Park.
When --- Around 1971

Photos 1 ----- 4 SASMEE archives

Photo 5 Picturesque study os SASMEE Park station departure tracks and storage sidings.
When --- 7th April 2002

Photo 6 End view of "Dolgoch" consist.
When --- 19th October 2002 PFD.

Photo 7 Ian Clark's reliable "Steeplecab" electric loco hauling a paying load.
When --- PFD 18th May 2003.

Photo 8 Graeme Dricolls's magnificant example of a loco relatively unknown -- a Kitson Meyer 0-6-0 + 0-6-0 in 5" g.
When --- PFD 1st August 2004
Photo 8 by Ziggy Mielke

SASMEE Locomotive Efficiency Trials Day 2004

{Abridged article for SASMEE Bulletin}

By

Allan Wallace

14/6/2004

At this time last year we ran the first SASMEE Locomotive Efficiency Trials Day. The event was repeated this year and Saturday 12 June 2004 became second SASMEE Locomotive Efficiency Trials Day. Many of the same engines and drivers entered, with everyone expecting to improve on the previous result.

We used the same dynamometer car as before. Externally, it is a close 5" gauge replica in its early livery. Internally it is very modern. The front drawbar is linked to an electronic load cell, and the wheels drive DC Tachometer and an optical revolution counter. A box of electronics conditions the signals, converts them to digital format, and transmits them to a laptop computer carried on a conventional passenger truck behind the car.

The laptop computer displays a scrolling "paper" chart, like the original instrument table, but it reads data every second and stores the information on disc for subsequent display or printing.

A full technical description of the dynamometer car can be downloaded from my website, at www.avocetconsulting.com.au/modeleng. It was a joint project by John Lyas and me. You can also download the graphical data from all the runs done during the trials day.

Figure 1 is a typical display.

We used the outer (7.25"/5") loop for all the tests. Locomotives towed the dynamometer car and a train for about 30 minutes. Coal was taken from a weighed batch and the firebox refilled to its starting depth at the end of the run. Only the load from the dynamometer back was included in the work done tally.

The grades around the circuit are not that severe, but generally the drawbar pull becomes a push at some places when the locomotive slows

down and the train pushes the engine. The software was set to ignore negative drawbar forces so that locomotives braking did not reduce the work tally.

To calculate the thermal efficiency, the useful work done at the drawbar (measured at the dynamometer car, in joules) was divided by the energy released by the burnt coal.

Figure 2 shows the relative thermal efficiencies in rank order.

It must be stated that quoting the figures to three significant figures is not justified, given the approximation involved in measuring the coal consumed. The differences between the first three engines is much smaller than the measurement accuracy and they should be ranked as equal first.

Efficiency is the ratio of out/input, so it is a valid index for comparing locomotives of any scale. Figure 3 breaks the efficiency into its two components for each engine, where drawbar power is the Output, and coal rate is a measure of Input.

In figure 4 the coal burnt (at a calorific value of 30MJ/Kg), and the work done, have both been divided by the running time to express them as watts, and kg/hr, which allows direct comparison. The power of combustion in the small fireboxes is noteworthy, reaching around 30kW. This assumes that all the coal is burnt and does not allow for losses into the ashpan.

Compared to last year, the three top engines were working harder, and have returned better efficiency. There would be an optimum power output where the efficiency is a maximum for any engine. One of the challenges for drivers is to choose a load near its optimum.

We felt that the biggest shortcoming in the procedure was the measurement of coal consumed. Even with the best intentions, one cannot be sure that the level of fuel in the firebox is the same before and after the run.

We took the opportunity to test a petrol - electric locomotive built and driven by Graham Brown.

The statistics for this engine were:

Average speed	12.5 kph
Average drawbar power	287 Watts
Test time and distance	29.0 minutes, 6038m
Mass of petrol used	607g
Combustion rate (44.2MJ/kg)	15419 watts
Thermal efficiency	1.86%

Graham's motive power is a Victa two-stroke single cylinder engine with a displacement of 160 ml, driving two Bosch alternators which in turn drive four permanent-magnet traction motors.

Curiously, last years winner (Speedy) returned only 1.0%, compared to the 1.6% before, despite being driven under almost identical conditions. This might be a reflection of the poor accuracy of the coal measurement, but there were other factors too. Finer coal was used this year (more was lost in the ashpan) and no doubt the seals are leaking more, as she has not been serviced since the previous run.

As mentioned above, there was no significant differences between the first three engines, but if we accept the lottery of the third significant figure, then Dolgoch is the winner.

Dolgoch was originally built by Frank Lee, and has 2.187" bore x 3.5" stroke cylinders. The pistons are fitted with cast iron rings. Stephenson's valve gear is used, with slide valves. The driving wheel diameter is 7.25" and the axles run in bronze journal bearings.

Boiler feed is catered for by an axle pump, a donkey pump and an injector.

The copper boiler is 7.25 " diameter with 18 firetubes and two stainless steel radiant superheaters. It has a stainless steel arch and the grate area has 20% open area with 3/32" gaps.

In her dynamometer data, she recorded a maximum drawbar pull of 460

SASMEE Locomotive Efficiency Trials

12/6/2004

Figure 3

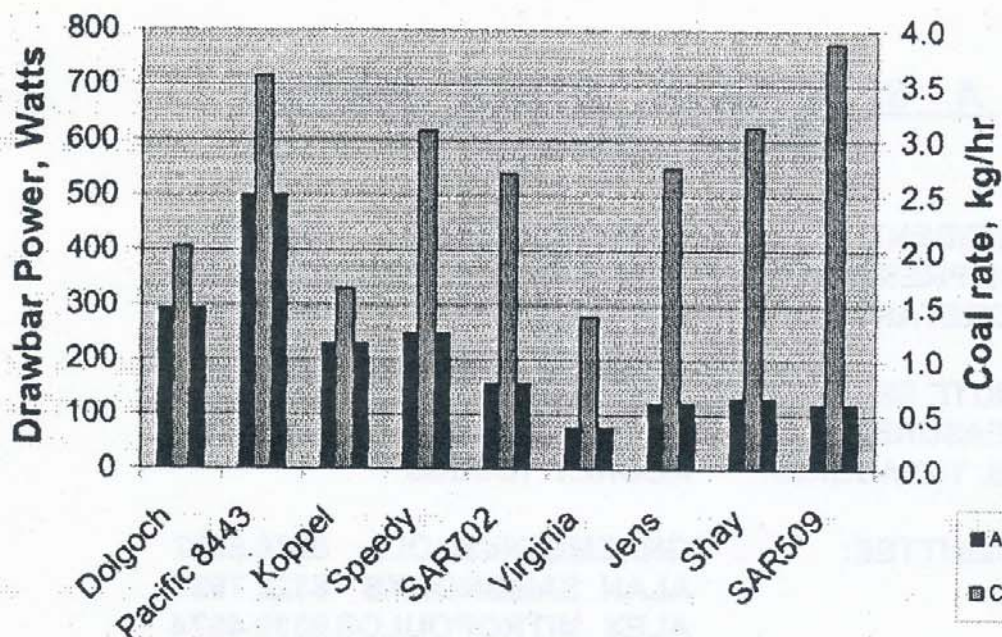


Figure 4

Owner/Driver	Loco	Wheels	Gauge inches	Trip time mins	Dist- ance m	Coal Rate kg/hr	Av Comb' n rate Watts	Av D'bar power Watts	Av Speed kph	Thermal Effy %
Barry/Craig Dunstan	Dolgoch	0-4-0T	7.25	33.4	5128	2.0	16931	293	9.2	1.73%
Ian Thomas	Pacific 8443	4-6-2	7.25	29.5	5113	3.6	29797	500	10.4	1.68%
Bob Nash/ Glen T	Koppel	0-4-0T	7.25	28.5	3903	1.7	13772	229	8.2	1.66%
Allan Wallace	Speedy	0-6-0T	5	30.3	4489	3.1	25660	249	8.9	0.97%
Bob Smith	SAR702	2-8-2	5	32.4	5234	2.7	22454	156	9.7	0.70%
Brad Cottle	Virginia	4-4-0	5	33.4	3579	1.4	11677	75	6.4	0.65%
Bill Coles	Jens	0-4-0	7.25	30.8	3925	2.8	22955	120	7.6	0.52%
Graeme Driscoll	Shay	4 truck	7.25	32.5	4564	3.1	26031	130	8.4	0.50%
John/Phillip Mere	SAR509	4-8-4	5	32.2	3925	3.9	32267	119	7.3	0.37%

WANTED

Any body have or know of any
body who has a metal shaper
for sale? Max. 10" preferred,
any condition.
Contact Bill Coles

S. A. S. M. .E. E. OFFICE BEARERS
2003----- 2004

PRESIDENT: BARRY DUNSTAN 8248 4843
VICE PRESIDENT: GLEN TEMPLEMAN 8338 0380
SECRETARY: IAN CLARK 8293 6537
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LIBRARIANS: JOHN DAVEY
BILL COLES

BOILER INSPECTORS: ALAN BRABHAM 8362 1279
JOHN GORDON 8398 2035
BILL COLES 8296 2167
JOHN LEVERS

CANTEEN MANAGEMENT: EXECUTIVE COMMITTEE

CANTEEN ROSTER: JEAN CLARK 8293 6537

VICE PATRON: His Worship the MAYOR of the City of
Unley, Michael Keenan.

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